

AMENDMENTS TO THE CLAIMS

Please amend the Claims as follows. Insertions are shown underlined while deletions are ~~struck through~~.

1 (previously presented): A supporting device for non-averaged force in a pipeline comprising:

a frame, which is adapted to encircle a pipe body and to be fixed to a supporting portion, and

a fixing mechanism, which serves to fix the pipe body to the frame,

wherein the fixing mechanism is arranged in that a plurality of wedge bodies are provided that are capable of blocking movements of the pipe body in a pipe axial direction with respect to the frame upon being pressed against an outer surface of the pipe body through pressing force acting from the frame towards the pipe body, and

wherein the wedge bodies are disposed at specified intervals in the pipe axial direction, while a posture of the wedge bodies is set in a condition such that directions of wedge actions of one pair of wedge bodies adjoining in the pipe axial direction are opposite with respect to each other in the pipe axial direction.

2 (canceled)

3 (previously presented): A supporting device for non-averaged force in a pipeline comprising:

a frame, which is adapted to encircle a pipe body and to be fixed to a supporting portion, and

a fixing mechanism, which serves to fix the pipe body to the frame,

wherein the fixing mechanism comprises (i) edge portions for receiving an outer surface of the pipe body from one side in a radial direction of the pipe body by pinching the pipe body, and (ii) wedge bodies for blocking movements of the pipe body in a pipe axial direction with respect to the frame upon being pressed against an outer surface of the pipe body from the other side in the radial direction of the pipe body through pressing force acting from the frame towards the pipe body, and wherein the wedge bodies are disposed at specified intervals in the pipe axial direction, while a posture of the wedge bodies is set in a condition such that directions of wedge actions of one pair of wedge bodies adjoining in the pipe axial direction are opposite with respect to each other in the pipe axial direction.

Appl. No. : 10/079,077
Filed : February 19, 2002

4 (canceled)

5 (currently amended): A supporting device for non-averaged force in a pipeline comprising:

a frame, which is adapted to encircle a pipe body and to be fixed to a supporting portion, said ~~flame~~frame being comprised by integrally forming i) a mounting seat portion to be fixed to the supporting portion, ii) a pipe supporting portion rising up from the mounting seat portion, and iii) a rib that is in line with a pipe axial direction, said pipe supporting portion being two-split in a radial direction and the pair of separated pipe supporting portions being coupled together by a coupling means; and

a fixing mechanism, which serves to fix the pipe body to the frame,

wherein the fixing mechanism comprises male screw members for blocking movements of the pipe body in a pipe axial direction with respect to the frame by pressing an outer surface of the pipe body with their tip end portions in a condition in which they are screwed into female screw portions formed in the frame, and said male screw members are provided to be dispersed in a circumference direction.

6 (original): The supporting device for non-averaged force in a pipeline as claimed in Claim 5, wherein the tip end portions of the male screw members are indented.

7 (currently amended): A supporting device for non-averaged force in a pipeline comprising:

a frame, which is adapted to encircle a pipe body and to be fixed to a supporting portion, and

a fixing mechanism, which serves to fix a pipe body to the frame,

said fixing mechanism comprising (i) edge portions for receiving an outer surface of the pipe body, said edge portions formed on a portion of an inner circumference of the frame in a circumference direction, and (ii) male screw members for blocking movements of the pipe body in a pipe axial direction with respect to the frame, said male screw members provided on another portion of the inner circumference of the frame, wherein the portion of the inner circumference and the ~~other~~another portion of the inner circumference face each other, and said male screw members press against an outer surface of the pipe body at their tip end portions when the male screw members are screwed into female screw portions formed in the frame.

Appl. No. : **10/079,077**
Filed : **February 19, 2002**

8 (original): The supporting device for non-averaged force in a pipeline as claimed in Claim 7, wherein the tip end portions of the male screw members are indented.

9 (previously presented): A supporting device for non-averaged force in a pipeline comprising:

a frame, which is adapted to encircle a pipe body and to be fixed to a supporting portion, and

a fixing mechanism, which serves to fix a pipe body to the frame,

said fixing mechanism comprising (i) movement blocking bodies for blocking movements of the pipe body in a pipe axial direction, said movement blocking bodies being arranged along an inner circumference of the frame,

each movement blocking body having a pair of edge portions at an interval in the pipe axial direction, and (ii) pressing screw members for pressing a top surface of each movement blocking body through the frame, whereby the edge portions of each movement blocking body press against an outer surface of the pipe body.

10 (previously presented): A supporting device for non-averaged force in a pipeline comprising:

a frame, which is adapted to encircle a pipe body and to be fixed to a supporting portion, said frame comprising (i) a first receiving portion which is a half of the frame and (ii) a second receiving portion which is another half of the frame, said first receiving portion and said second receiving portion being detachable, and

a fixing mechanism, which serves to fix a pipe body to the frame,

said fixing mechanism comprising arc-shaped edge portions formed on the first receiving portion and the second receiving portion for receiving an outer surface of the pipe body in a circumference direction.

11 (original): The supporting device for non-averaged force in a pipeline as claimed in Claim 10, wherein the edge portion is set in a posture that is in line with a peripheral direction of the first receiving portion or the second receiving portion, and in that a plurality thereof is disposed at specified intervals in the peripheral direction and an axial core direction of the first receiving portion or the second receiving portion.

12 (original): The supporting device for non-averaged force in a pipeline as claimed in Claim 10, wherein the edge portion is set in a posture that is in line with a peripheral direction of

Appl. No. : **10/079,077**
Filed : **February 19, 2002**

the first receiving portion or the second receiving portion , and in that a plurality thereof is disposed at specified intervals in an axial core direction of the first receiving portion or the second receiving portion.

13 (original): The supporting device for non-averaged force in a pipeline as claimed in Claim 10, wherein the edge portion is set in a posture that is inclined with respect to an axial core direction of the first receiving portion or the second receiving portion, and in that a plurality thereof is disposed at specified intervals in the peripheral direction and the axial core direction of the first receiving portion or the second receiving portion.

14 (original): The supporting device for non-averaged force in a pipeline as claimed in Claim 10, wherein edge portions of a posture that is in line with the peripheral direction of the first receiving portion or the second receiving portion and edge portions of a posture that is inclined with respect to the axial core direction of the first receiving portion or the second receiving portion are mixed.

15 (previously presented): A supporting device for non-averaged force in a pipeline comprising:

a frame, which is adapted to encircle a pipe body and to be fixed to a supporting portion, and

a fixing mechanism, which serves to fix a pipe body to the frame,

said fixing mechanism comprising (i) movement blocking bodies for blocking movements of the pipe body in a pipe axial direction,

each movement blocking body being having three or more edge portions at intervals in the pipe axial direction, or alternatively, one edge portion, and (ii) pressing screw members for pressing a top surface of each movement blocking body through the frame, whereby the edge portion or portions are pressed against the outer surface of the pipe body.

16 (currently amended): A supporting device for non-averaged force in a pipeline comprising:

a ring body, which encloses a pipe body,

a plurality of pressing portions, which press the pipe body from outside in a radial direction while being dispersed in a peripheral direction of the ring body,

a frame, which is provided as a separate body than the ring body and is fixed to a fixing portion, said ~~frame~~frame being comprised by integrally forming i) a mounting seat portion to be

Appl. No. : 10/079,077
Filed : February 19, 2002

fixed to the fixing portion, ii) a pipe supporting portion rising up from the mounting seat portion, and iii) a rib that is in line with a pipe axial direction, and

a supporting portion, which is provided at the frame for supporting the ring body.

17 (original): The supporting device for non-averaged force in a pipeline as claimed in Claim 16, wherein the supporting portion is arranged in that a concave portion for receiving and accumulating a portion of the ring body portion or a portion of the belt body is provided at the frame.

18 (original): The supporting device for non-averaged force in a pipeline as claimed in Claim 16, wherein the frame is arranged by mutually coupling a pair of separated frames made of an angle member disposed in a condition in which they are aligned in the pipe axial direction of the pipe body, and

that the supporting portion is arranged in that a first restricting portion for receiving and restricting the ring body in vertical directions, a second restricting portion for receiving and restricting the same from outside in lateral directions, and a third restricting portion for receiving and restricting the same in the axial core direction of the pipe body are provided at the respective separated frames.

19 (currently amended): A supporting device for non-averaged force in a pipeline comprising:

a belt body, which fastens a pipe body,

a frame, which is provided as a separate body than the belt body and which is fixed to a fixing portion, said ~~frame~~frame being comprised by integrally forming i) a mounting seat portion to be fixed to the fixing portion, ii) a pipe supporting portion rising up from the mounting seat portion, and iii) a rib that is in line with a pipe axial direction, and

a supporting portion, which is provided at the frame for supporting the belt body.

20 (original): The supporting device for non-averaged force in a pipeline as claimed in Claim 19, wherein the supporting portion is arranged in that a concave portion for receiving and accumulating a portion of the ring body portion or a portion of the belt body is provided at the frame.

21 (previously presented): The supporting device for non-averaged force in a pipeline as claimed in Claim 16, wherein said ring body is two-split in a radial direction and the pair of separated ring bodies are coupled together by a coupling means.

Appl. No. : **10/079,077**
Filed : **February 19, 2002**

22 (currently amended): The supporting device for non-averaged force in a pipeline as claimed in Claim 19, wherein said belt body is two-split in a radial direction and the pair of separated belt bodies are coupled together by a coupling means.